

IFW 2.661

PATENT APPLICATION
Docket No: 14321.66



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of)
)
Jun-ichi Kani et al.)
)
Serial No.: 10/525,407) Art Unit
) 2661
Filed: February 23, 2005)
)
Confirmation No.: 7501)
)
For: OPTICAL WAVELENGTH MULTIPLEX ACCESS)
SYSTEM AND OPTICAL NETWORK UNIT)

CERTIFICATE OF DEPOSIT UNDER 37 C.F.R. § 1.8

I hereby certify that the following documents are being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450, on the 31st day of March 2006.

- Transmittal for Information Disclosure Statement (3 pages)
- Information Disclosure Statement (3 pages)
- Form PTO-1449 listing 6 references (2 pages)
- A copy of each of the references listed on the Form PTO-1449
- Postcard

Respectfully submitted,

DANA L. TANGREN
Attorney for Applicant
Registration No. 37,246
Customer No. 022913
Telephone No. 801.533.9800

RICK D. NYDEGGER
BRENT P. LORIMER
THOMAS R. VUKSINICK
LARRY R. LAYCOCK
JONATHAN W. RICHARDS
DAVID R. WRIGHT
JOHN C. STRINGHAM
JOHN M. GUYNN
CHARLES L. ROBERTS
DANA L. TANGREN
ERIC L. MASCHOFF
CHARLES J. VEVERKA
ROBYN L. PHILLIPS
RICHARD C. GILMORE *
STERLING A. BRENNAN
R. BURNS ISRAELSEN
DAVID R. TODD
DAVID B. DELLENBACH
L. DAVID GRIFFIN
ADRIAN J. LEE
FRASER D. ROY
CARL T. REED



R. PARRISH FREEMAN, JR.
PETER F. MALEN, JR.
L. REX SEARS, PH.D.
WILLIAM R. RICHTER
ROBERT E. AYCOCK
JENS C. JENKINS
MICHAEL B. DODD
KEVIN W. STINGER
WILLIAM J. ATHAY
RYAN D. BENSON
SARA D. JONES
TIGE KELLER
JANNA L. JENSEN
MATTHEW D. TODD
J. LAVAR OLDHAM
MICHAEL J. FRODSHAM
BRETT A. HANSEN
BRETT I. JOHNSON
MATTHEW A. BARLOW
WESLEY C. ROSANDER
ANDREW S. HANSEN
CHAD E. NYDEGGER
JOSEPH G. PIA
CLINTON E. DUKE
RYAN N. FARR
JAMES B. BELSHE
KIRK R. HARRIS
MICHAEL M. BALLARD
DAVID A. JONES
SHANE K. JENSEN
JONATHAN M. BENNS, PH.D.
SCOTT A. WOODBURY
JOHN T. GADD
MARK W. FORD
AARON M. SMITH

VERNON R. RICE §
OF COUNSEL

WORKMAN | NYDEGGER

INTELLECTUAL PROPERTY ATTORNEYS



1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111
TELEPHONE: (801) 533-9800
FAX: (801) 328-1707
WEBSITE: HTTP://WWW.WNLAW.COM

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For: OPTICAL WAVELENGTH MULTIPLEX ACCESS)
SYSTEM AND OPTICAL NETWORK UNIT)

TRANSMITTAL FOR INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing and pursuant to 37 C.F.R. § 1.97 is an Information Disclosure Statement, which includes the following statements, if any, required variously by 37 C.F.R. § 1.98:

- ☒ Statement of relevance of selected cited references not in the English language which are not translated.
- ☐ Statement that selected cited references are substantially cumulative of an enclosed or previously submitted reference.
- ☐ Statement that selected cited references were previously cited by or submitted to the United States Patent and Trademark Office in a prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120.

A. Additional Materials Required Due to Content of Information Disclosure Statement

Transmitted are the following documents in addition to the Information Disclosure Statement as required variously under 37 C.F.R. § 1.98:

- ☒ Form PTO-1449 listing 6 reference submitted for consideration.
- ☒ A copy of each of the references listed on the Form PTO-1449.
- ☐ English translations of ___ (___) of the references listed on the Form PTO-1449 which are not in the English language.
- ☐ Copies of the following documents from the prosecution of a previous, related application:
 - ☐ Form PTO-1449 AND INFORMATION DISCLOSURE STATEMENT; and
 - ☐ Form PTO-892

B. Additional Materials Required Due to Timing of Filing of Information Disclosure Statement

The transmitted Information Disclosure Statement is being filed within one (1) of the following four (4) time periods:

- I. ☒ Prior to the later of either three (3) months following the filing date or the mailing of a first Office Action. Accordingly, no materials other than those listed above are enclosed.
- II. ☐ Following the latter of either three (3) months following the filing date or the mailing of a first Office Action, but before the mailing of a final Office Action or a Notice of Allowance. Accordingly, to secure consideration thereof, one (1) of the following is also enclosed:
 - ☐ Promptness Certification; or
 - ☐ Check No. _____ in the amount of ___ constituting the submission fee set forth in 37 C.F.R. § 1.17(p).
- III. ☐ After the mailing of a Notice of Allowance, but before payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
 - ☐ Promptness Certificate;
 - ☐ Petition for Consideration; and

- ___ Check No. in the amount of ___ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).
- IV. ___ After payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
- ___ Petition to Withdraw from Issue; and
- ___ Check No. ___ in the amount of ___ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).

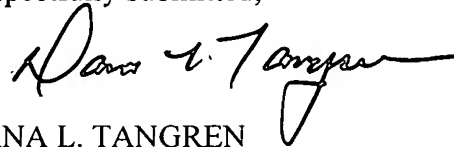
C. Fees

The Commissioner is hereby authorized to charge payment of or any deficiency in the following fees associated with this communication, or to credit any overpayment thereof, to Deposit Account No. 23-3178. A duplicate copy of this letter is enclosed.

- X Any fee required in relation to filing of this letter or any documents transmitted therewith.
- ___ The submission fee set forth in 37 C.F.R. § 1.17(p) in the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that any Promptness Certificate submitted meets the requirements of 37 C.F.R. § 1.97(e).
- ___ The submission fee set forth in 37 C.F.R. § 1.17(p).
- ___ The petition fee set forth in 37 C.F.R. § 1.17(i)(1).

Dated this 31st day of March 2006.

Respectfully submitted,



DANA L. TANGREN
Attorney for Applicant
Registration No. 37,246
Customer No. 022913
Telephone No. 801.533.9800



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SYSTEM AND OPTICAL NETWORK UNIT)

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. § 1.97

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed listed references are disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof that is not a US patent document is also enclosed.

Statement of Relevance of References Listed
Unaccompanied by English Translation
Under 37 CFR § 1.98(a)(3)

In accordance with 37 CFR § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided.

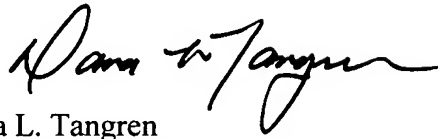
Japanese Application No. 2000-196536: PROBLEM TO BE SOLVED: To transmit an optical signal bilaterally between a station side unit (OSU) and a user unit (ONU) not having a light source without deteriorating the transmission efficiency with a simple configuration. SOLUTION: In the two-way optical transmission system, the station side unit (OSU) 10 and a plurality of user units (ONU) 30 not having a light source are connected via a wavelength router 20 and optical fiber transmission lines 21, 22, the station side unit 10 transmits modulated light and unmodulated light as outgoing signals to each user unit 30, each user unit 30 receives the modulated light to modulate the unmodulated light and transmits the resultant modulated signal as an incoming signal. In this case, one or a plurality of different wavelength bands are assigned for outgoing and incoming signals and different wavelength bands are assigned to the user units for outgoing and incoming signals.

Japanese Application No. 2001-177505: PROBLEM TO BE SOLVED: To allow a user device to autonomously control transmission timing and to bidirectionally transmit an optical signal with a simple configuration between a station side device (OSU) and the user device (ONU) that does not have a light source. SOLUTION: Broadband pulse light including a wavelength allocated to each ONU as non-modulation light for an up signal supplied from the OSU to each ONU and having a flat and continuous spectrum is periodically transmitted, for instance in a bit rate period. When the broadband pulse light is inputted to a wavelength router, the broadband pulse light is cut out as the single wavelength pulse light of the wavelength allocated to each ONU and respectively transmitted to each ONU from corresponding ports. Because each single wavelength pulse light is also periodically inputted to each ONU, each ONU selects single wavelength pulse light at appropriate timing and modulates and returns the single wavelength pulse light as an up signal.

Article entitled *Gigabit WDM-PON Systems Using Spectrum Slicing Technologies* discloses a novel WDM-PON system that offers gigabit-class optical access services to each user. This system employs wavelength-independent ONUs applying spectrum slicing technologies. We adopt cost-effective CWDM lasers as transmitters in OLT. To achieve a single access line, downstream and upstream signals are allocated at 20 nm (SWDM) and 200 GHz wavelength spacing within a arbitrary unoccupied DWDM channel, respectively. We evaluate and achieve a good prototype performance; the acceptable fiber loss, the transmission characteristics vs. temperature variation of multi-/demultiplexer and chromatic dispersions, and the frame loss, respectively.

Dated this 31st day of March 2006.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Dana L. Tangren", with a stylized, flowing script.

Dana L. Tangren
Attorney for Applicant
Registration No. 37,246
Customer No. 022913
Telephone No. 801.533.9800

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Applicant: Jun-ichi Kani et al.
 Serial No.: 10/525,407
 Filing Date: February 23, 2005
 For: OPTICAL WAVELENGTH MULTIPLEX ACCESS SYSTEM AND OPTICAL NETWORK UNIT

Confirmation No.: 7501
 Att'y Docket No.: 14321.66
 Art Unit: 2661



INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

U.S. Patent Documents

Examiner Initial*	Document Number	Issue Date	Name
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Foreign Patent Documents

Examiner Initial*	Document Number	Publication Date	Country or Patent Office	Translation
1	2000-196536	07/14/2000	Japan	No
2	2001-177505	06/29/2001	Japan	No

Other Documents

(including author, title, pertinent pages, etc.)

Examiner
Initial*

3	Koji Akimoto et al., <i>Gigabit WDM-PON Systems Using Spectrum Slicing Technologies</i> , The Institute of Electronics, Information and Communication Engineers, 05/2003, pp. 25-30.
4	ITU-T Recommendations G.983.1, 10/1998, p. 19.
5	Koji Akimoto et al., <i>Spectrum-sliced, 25-GHz Spaced, 155 Mbps X 32 Channel WDM Access</i> , The 4 th Pacific Rim Conference on Lasers and Electro-Optics, 2001, Vol. 2, pp. II-556-557.
6	Koji Akimoto et al., <i>Gigabit WDM-PON System Using Spectrum-Slicing Technologies</i> , ECOC 2003: 29 th European Conference on Optical Communication Paper, #TH2.4.6.

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Applicant: Jun-ichi Kani et al.
Serial No.: 10/525,407
Filing Date: February 23, 2005
For: OPTICAL WAVELENGTH MULTIPLEX ACCESS SYSTEM AND OPTICAL NETWORK UNIT



Sheet 2 of 2

Confirmation No.: 7501
Att'y Docket No.: 14321.66
Art Unit: 2661

References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

W:\14321\66\DFW0000017675V001.doc

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.